

Attitudes About and Barriers to Adult Immunization

National Vaccine Advisory Committee

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Immunization Services Division

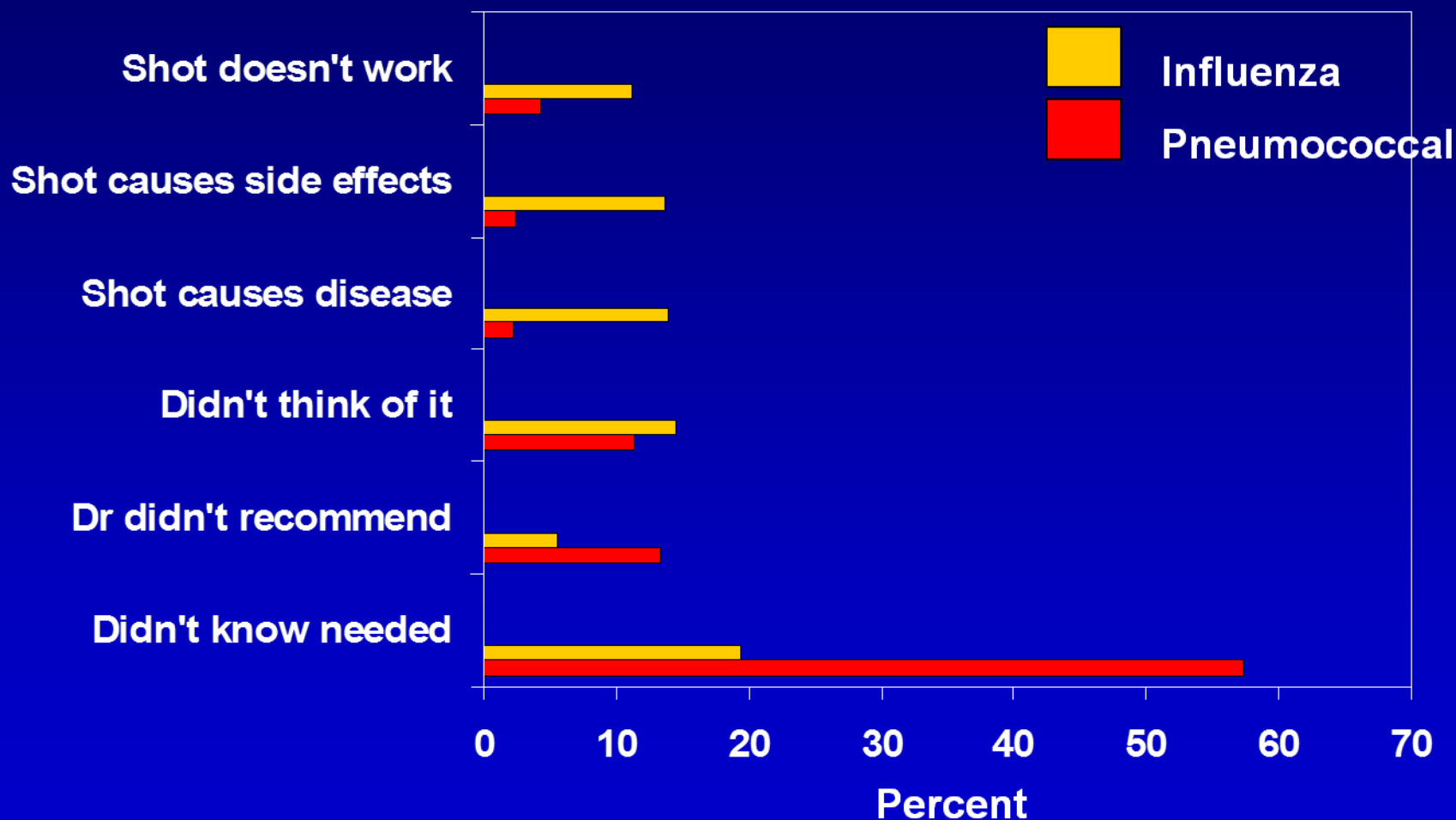
Centers for Disease Control and Prevention

Outline of Presentation

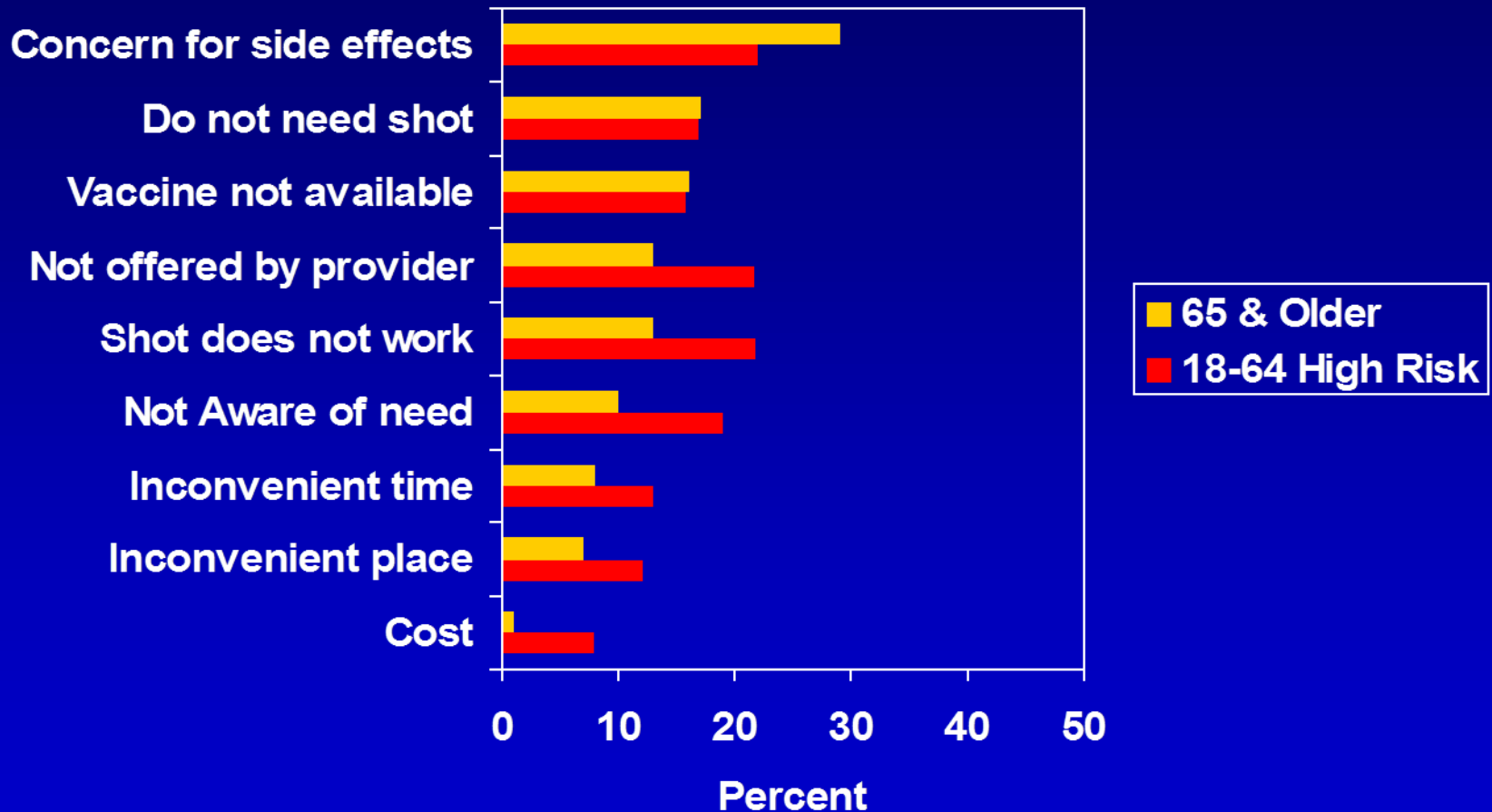
- Patient factors
- Provider factors
- Systems factors
- Environmental factors

Reasons for Not Getting Vaccinated

Medicare Beneficiary Survey



Reasons Given for Not Receiving Influenza Vaccination



ADULTS AGED ≥ 65 YEARS NOT RECEIVING INFLUENZA VACCINATION

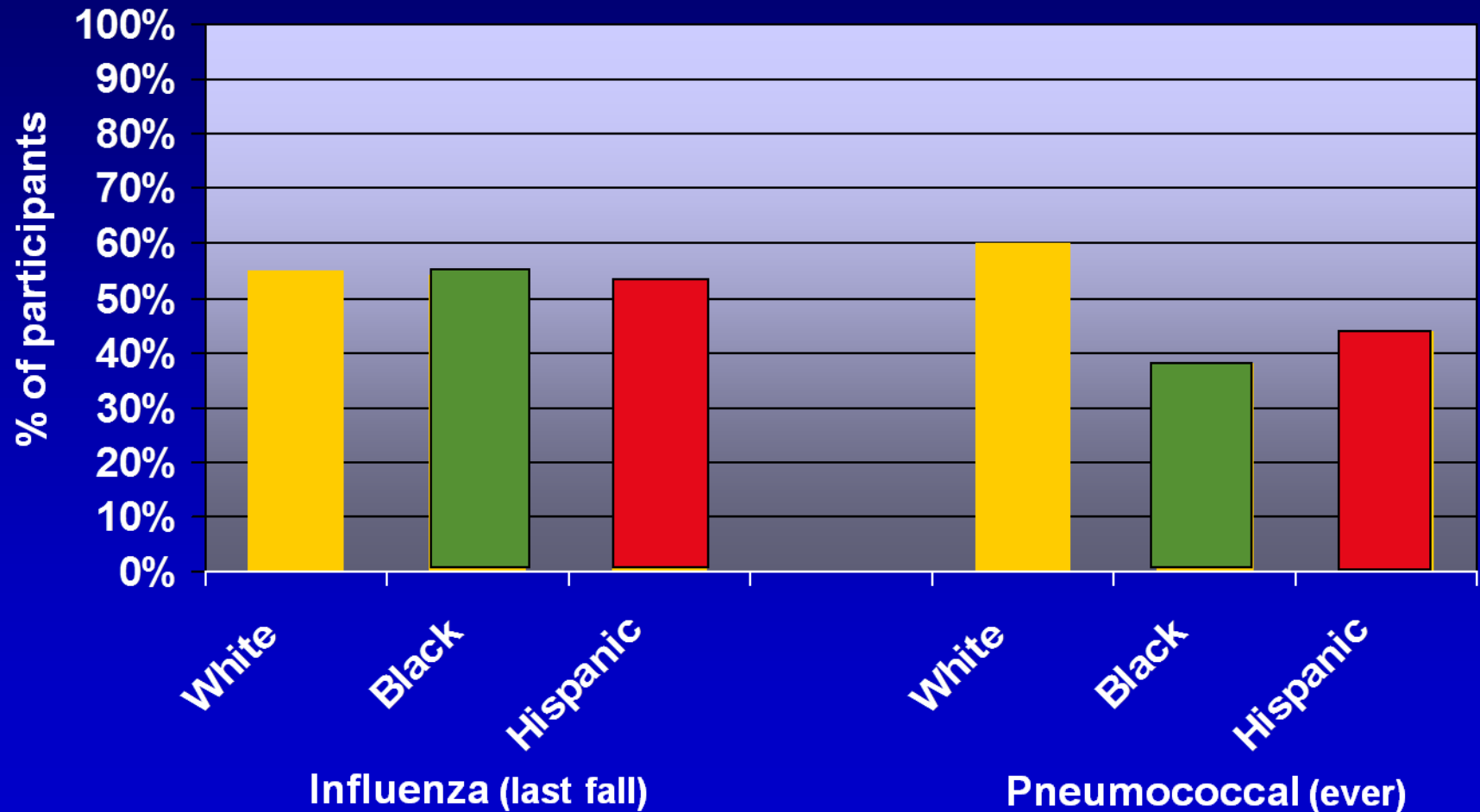
	White (%)	Black (%)	Hispanic (%)
Know that flu shot is recommended	91	81	79
Provider recommended flu shot since September 2002 (last year)	24	24	34
Reasons for not receiving vaccination:			
Concerned about side effects	26	26	19
Don't think I need the vaccine	22	15	23
Don't think the vaccine works	5	3	4

ADULTS AGED ≥ 65 YEARS NOT RECEIVING PNEUMOCOCCAL VACCINATION

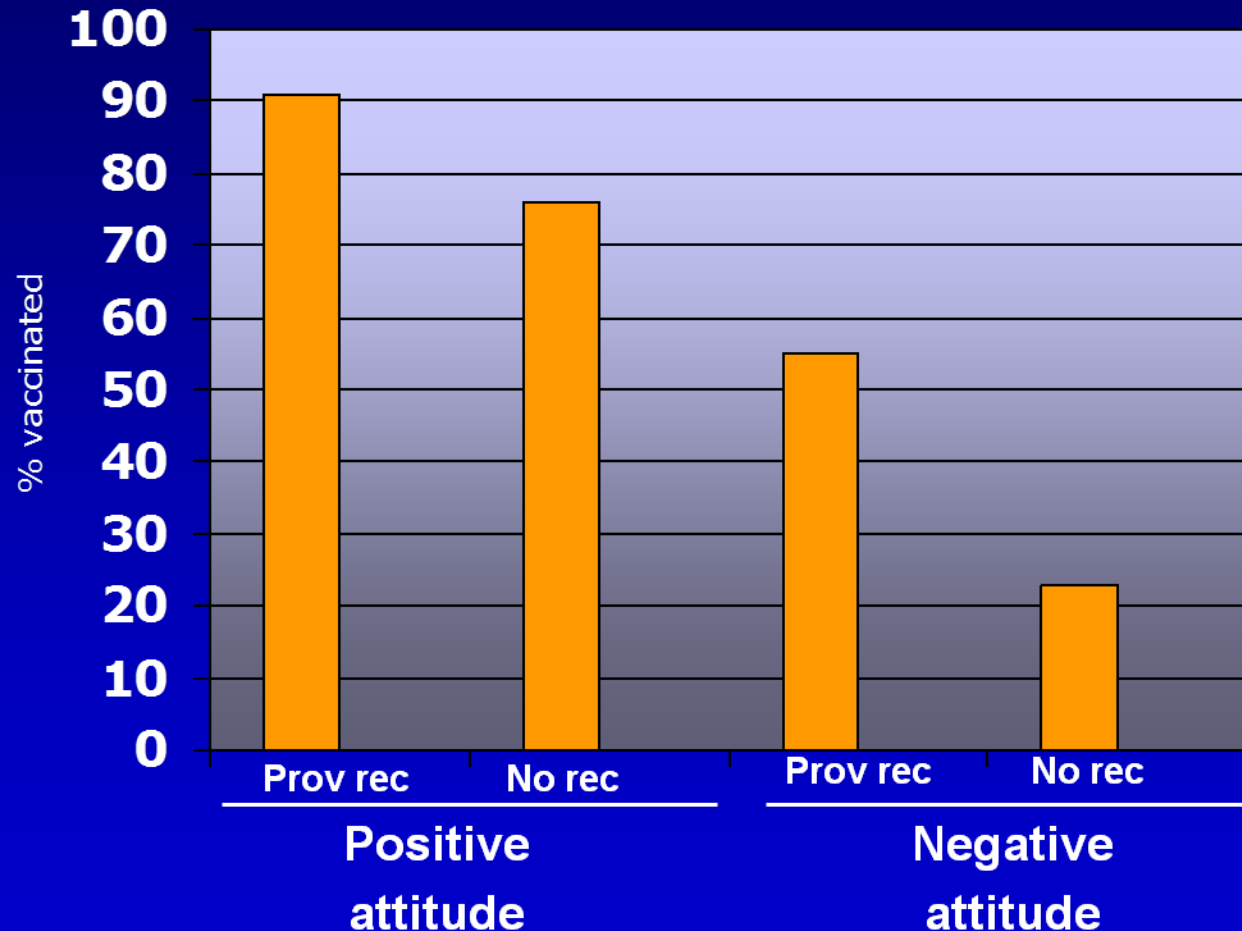
	White (%)	Black (%)	Hispanic (%)
Know that pneu. shot is recommended	56	39	39
Provider recommended shot since September 2002 (last year)	8	4	11
Reasons for not receiving vaccination:			
Concerned about side effects	7	8	10
Don't think I need the vaccine	33	17	19
Don't think the vaccine works	2	0	3
Don't know the shot existed	20	40	33

Singleton J. Am J Prev Med 29:412-20, 2005

Medicare Beneficiaries Reporting Provider Recommendation, READII Survey, 2003

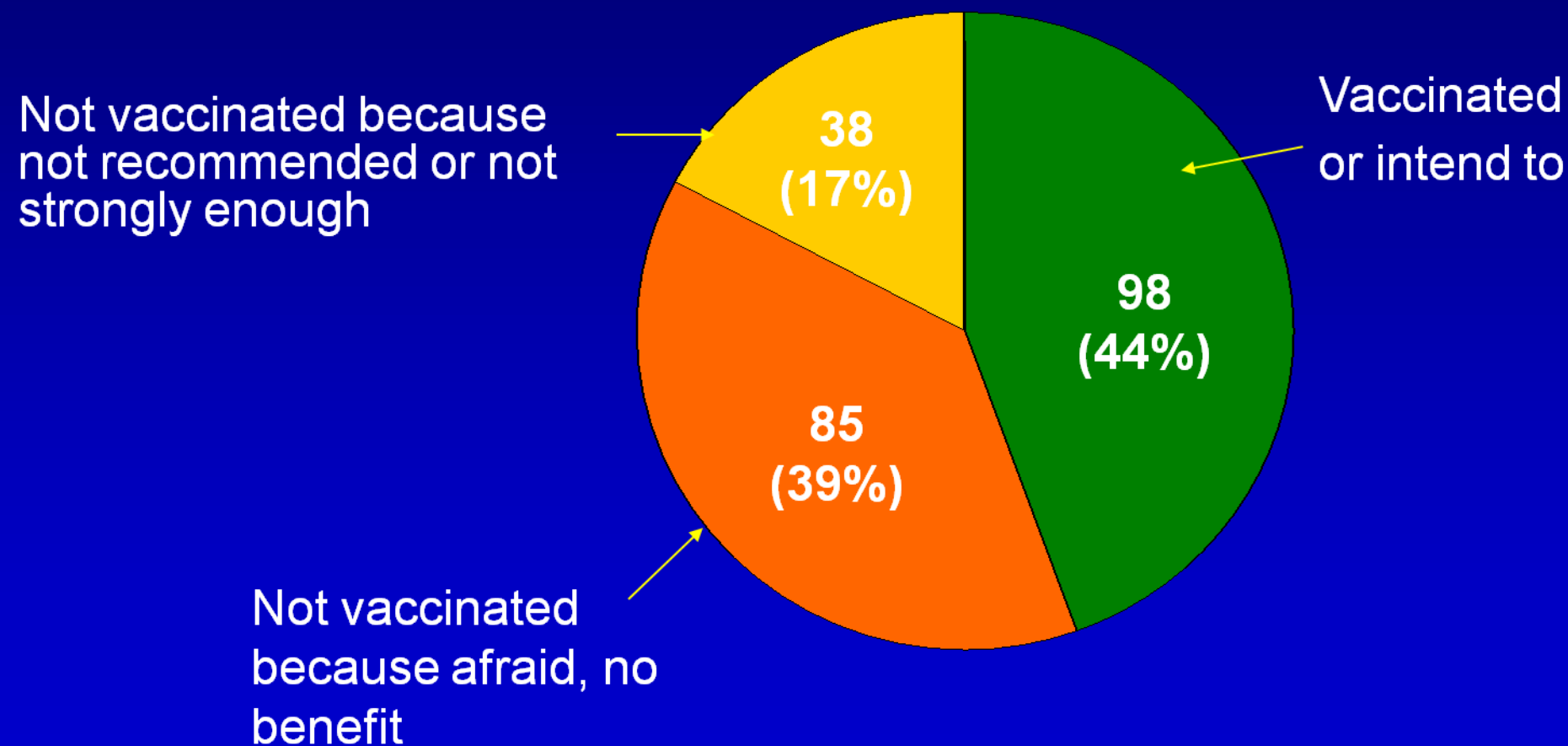


Influenza Vaccination by Attitude and Provider Recommendation (Medicare beneficiaries, READII Survey, 2004)



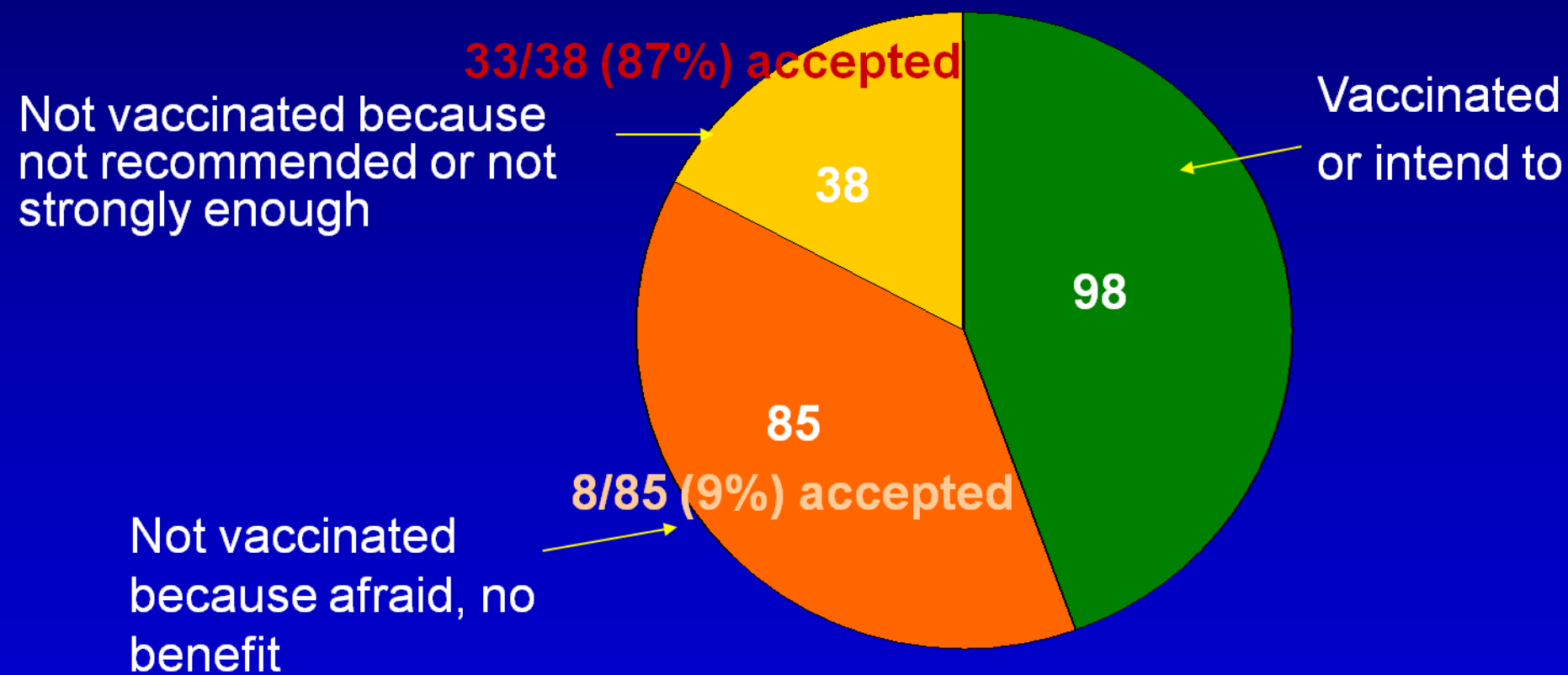
When Offered Vaccine, Do Patients Accept (1)

221 African American patients in Queens, NY, were asked about influenza vaccination before encounter with provider:



When Offered Vaccine, Do Patients Accept (2)

Physicians offered influenza vaccine to patients:



VACCINE ACCEPTANCE RATES WHEN SYSTEMATICALLY OFFERED

	African American	White
Detroit – Influenza vaccine* (Schwartz K, J Gen Intern Med 2006)	62%	69%
UCSF – Pneumococcal Vaccine† (Daniels N, J Nat Med Assoc 2006)	81%	92%

* Excluded persons who already received vaccine or stated vaccination as the reason for visit

† Excluded persons who already received vaccine

Provider Perspective Adult Health Care

- Not prevention-oriented
- Other acute and chronic problems
- Many prevention recommendations
(average 65+: 18 risk factors and 35 rec's*)
- Complex assessment for influenza
- Refusal
- Cost

*Medder JD. AJPM 8:150-3, 1992

PHYSICIAN PERCEPTION OF BARRIERS

Barrier	Pneumococcal vaccination*	Influenza vaccination*
Urgent concerns dominate visit	44	43
Not knowing patient immunization history	36	12
Patient concern about vaccine safety	31	58
Inadequate reimbursement	25	26
Identifying eligible patients	21	13
Lack of patient-oriented vaccine information	20	20

*Percent of physicians

Szilagyi. Prev Med 40:152-61, 2005

Evidence-Based Interventions

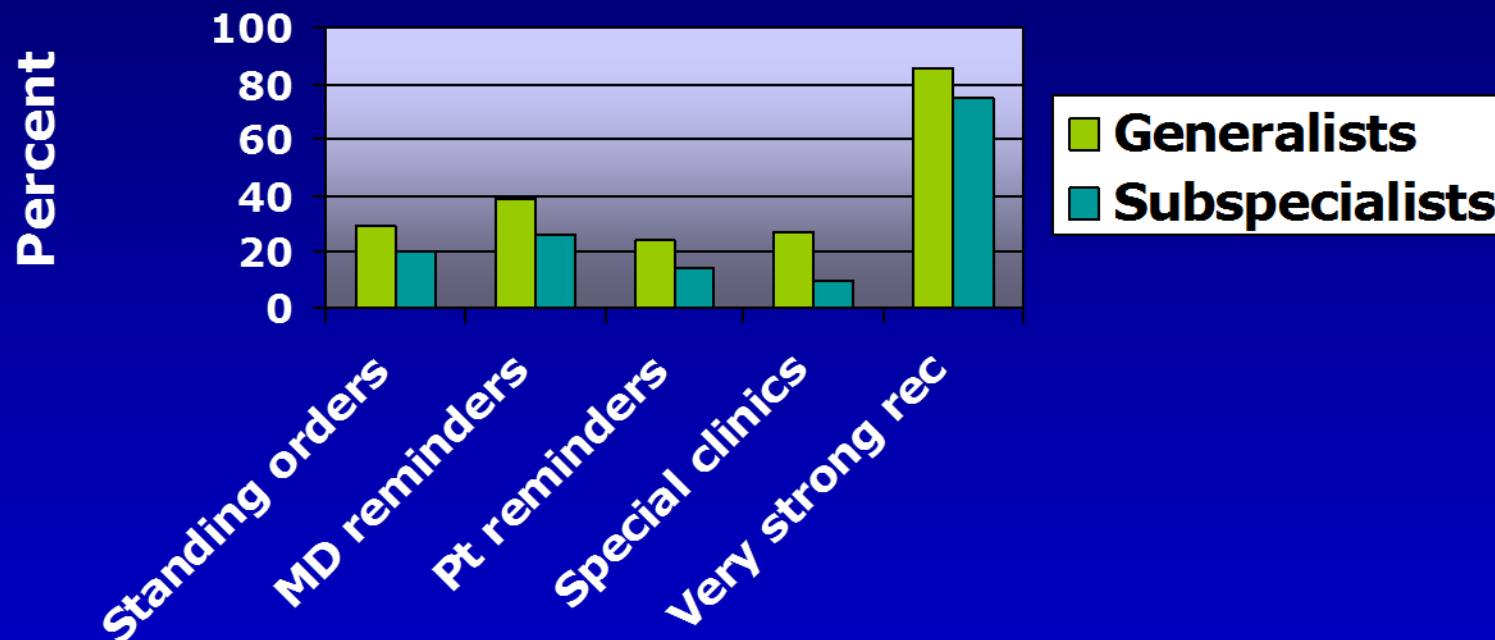
- Provider or system-based interventions
 - Provider reminder/recall
 - Feedback to providers
 - Standing orders for adults
- Increasing community demand
 - Client reminder/recall
 - Multicomponent education
- Enhancing access
 - Reducing out-of-pocket costs
 - Multicomponent expanding access (drop-in clinic, emergency dept, inpatient, sub-specialty clinics)

META-ANALYSIS OF INTERVENTIONS THAT INCREASE USE OF ADULT IMMUNIZATION

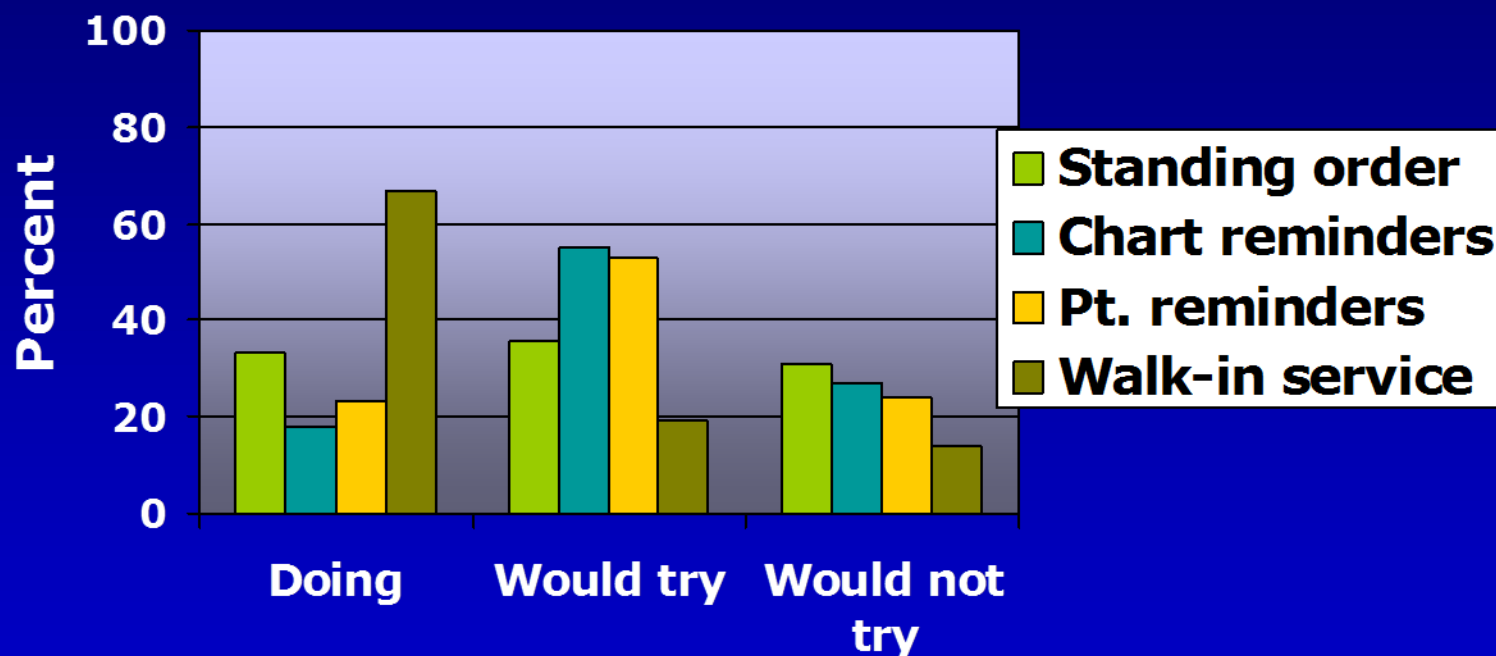
Intervention	Odds Ratio*
Organizational change (e.g., standing orders, separate clinics devoted to prevention)	16.0
Provider reminder	3.8
Provider education	3.2
Patient financial incentive	3.4
Patient reminder	2.5
Patient education	1.3

*Compared to usual care or control group, adjusted for all remaining interventions
Stone E. Ann Intern Med 136:641-51, 2002

Strategies Used by Physicians to Promote Influenza Vaccinations



Primary Care Physician Interest in Strategies to Improve Adult Vaccinations



Would an increase in payment encourage you to adopt new strategies?

Percent of respondents
(N=508)

	NY	NM	CA	Total
An increase would encourage new strategies	25	24	26	25
I already vaccinate all eligible patients	49	40	43	44
No increase would encourage new strategies	26	36	30	30

REIMBURSEMENT FOR INFLUENZA VACCINE AND ADMINISTRATION IN SELECTED YEARS

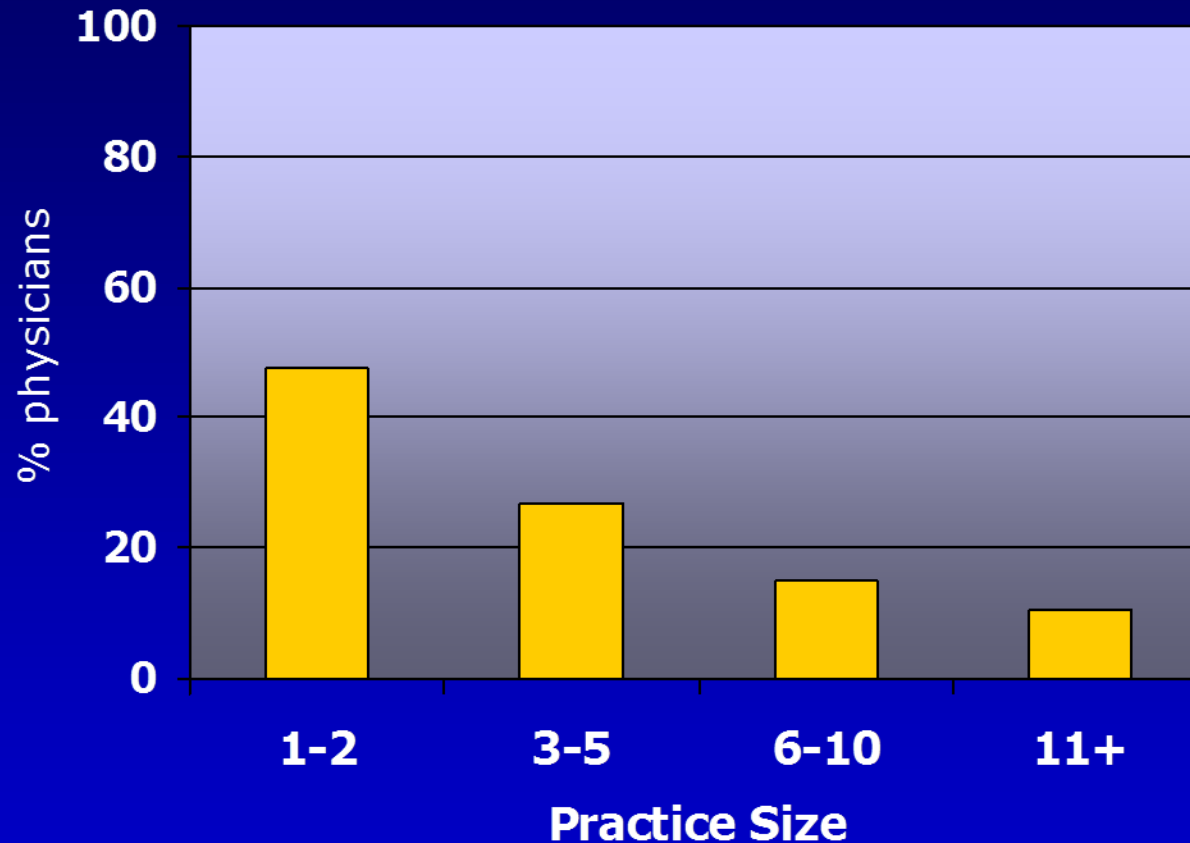
Year	Administrative Reimbursement	Vaccine Reimbursement
2001	\$4.59	\$7.12
2002	\$3.98	\$7.12
2003	\$10.17	\$7.50
2005	\$18.00	\$10.40
2007	\$19.33	\$13.22

All prices approximate national averages.

Operational Conditions Affecting Vaccination

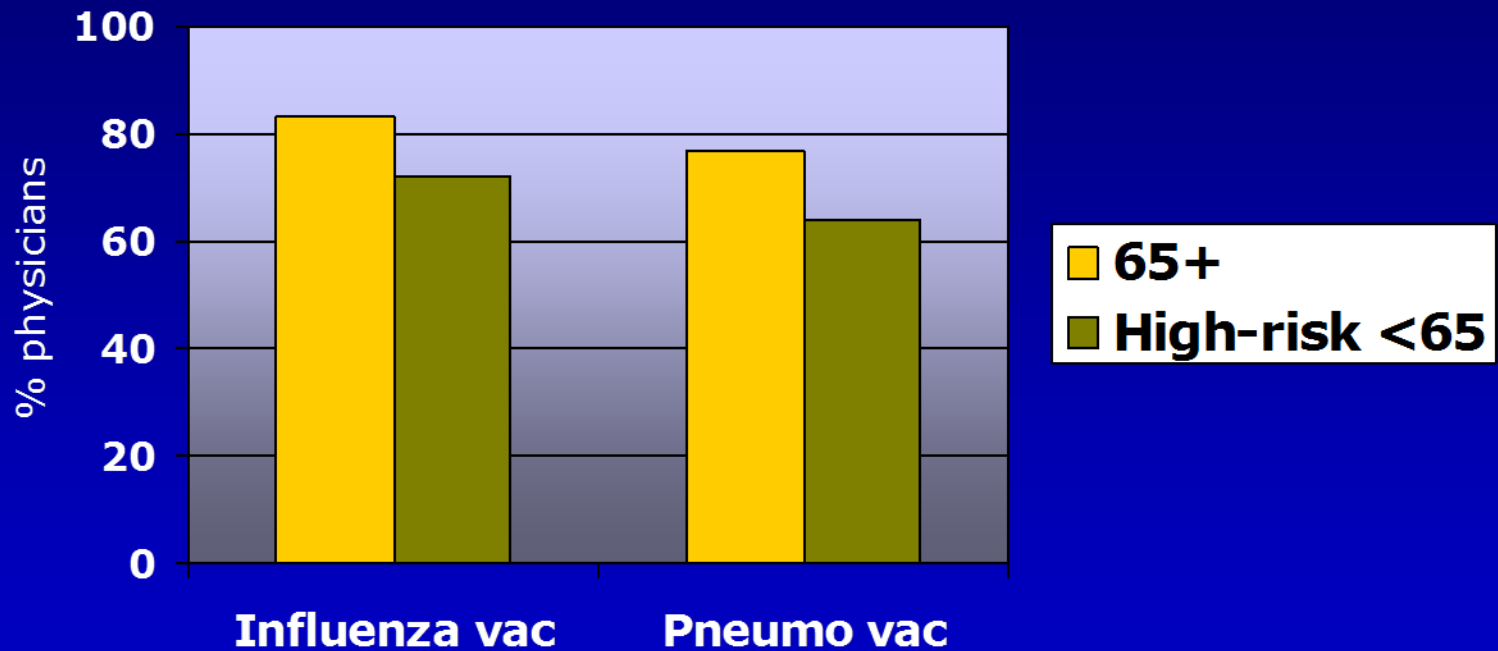
- Medium and large ambulatory care settings with reminder recall, provider prompting, and standing orders
- 62% of patients aged >50 years with scheduled visits received influenza vaccinations
- Best pathway to immunization
 - Pt. asked about vaccinations by staff prior to exam, AND
 - Pt. asked about vac by provider in exam room, AND
 - Time with provider to total time in clinic, ratio $\leq 1:2$, AND
 - Provider to staff ratio $\geq 1:4$

Distribution of Physicians by Practice Size

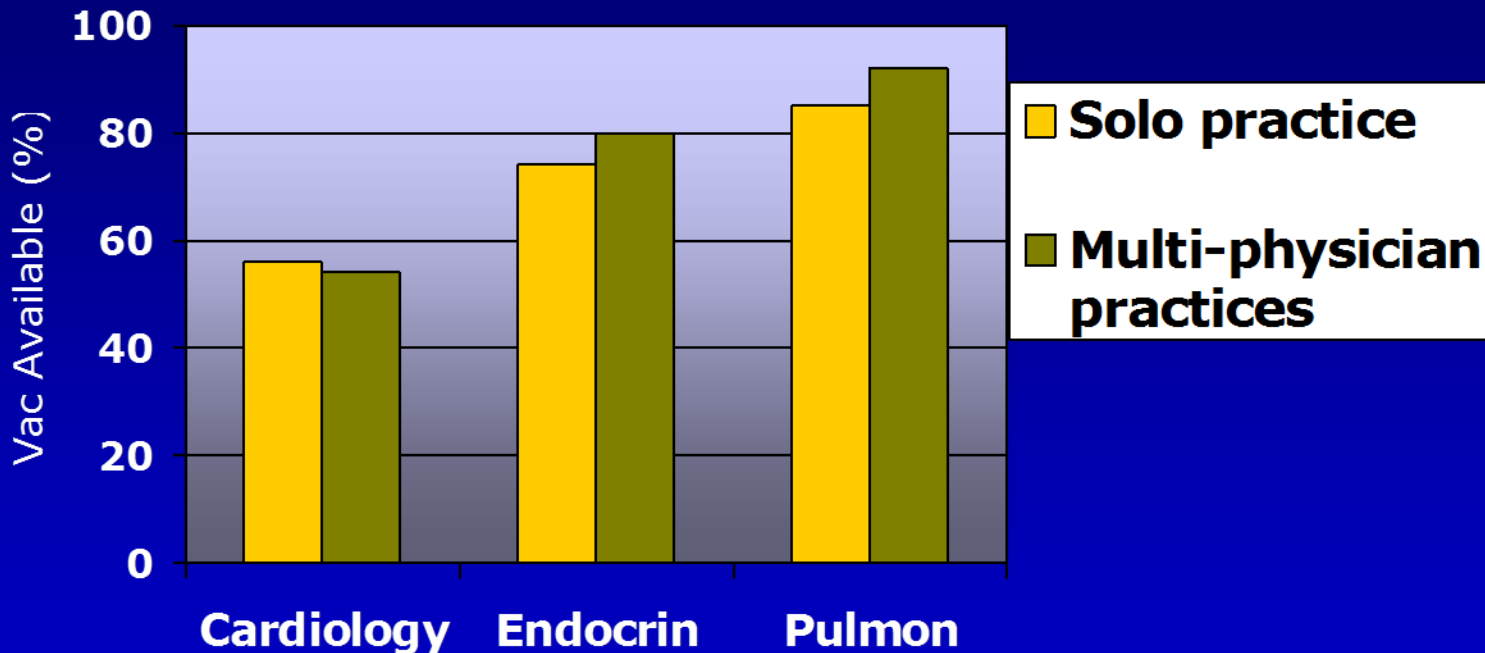


Hing E. Advance Data no. 383, NCHS, 2007

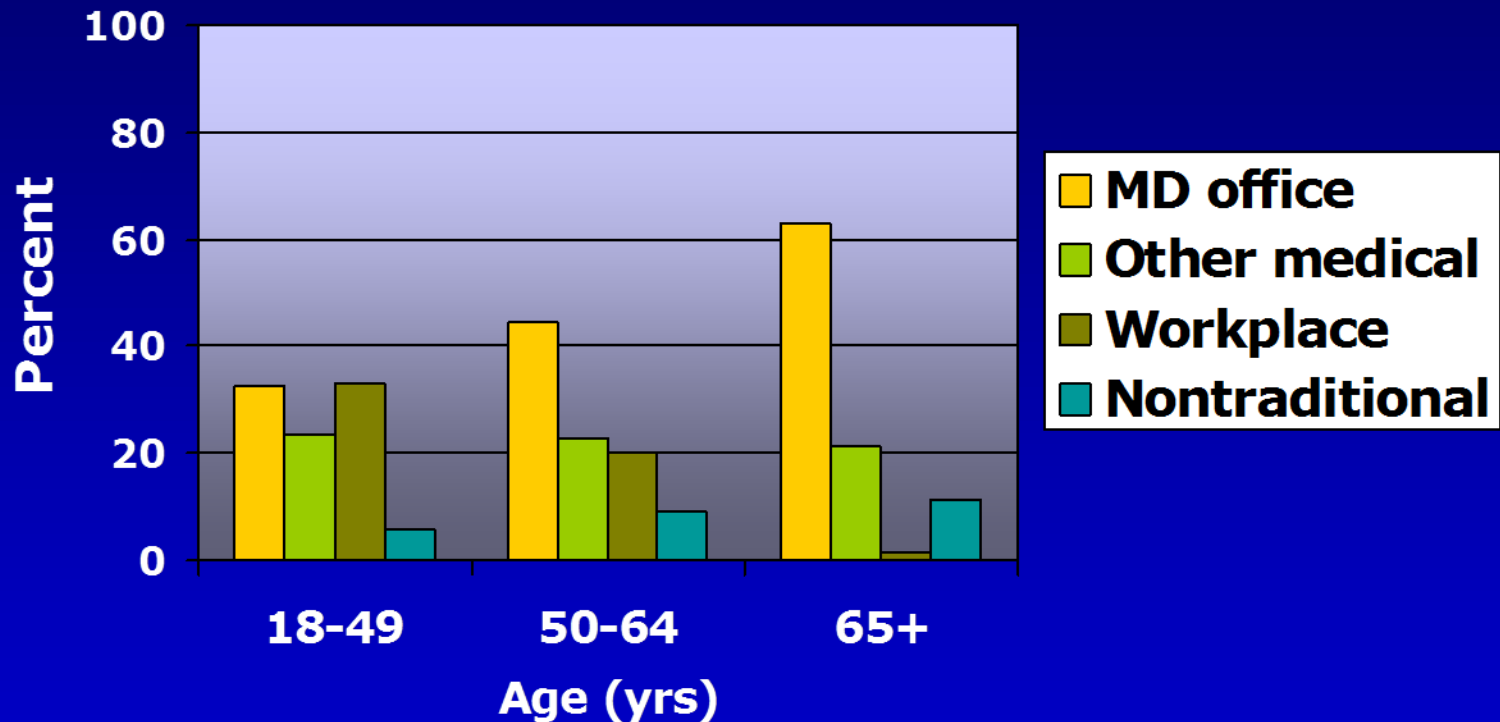
Primary Care Physicians Who Routinely Administer Adult Vaccinations



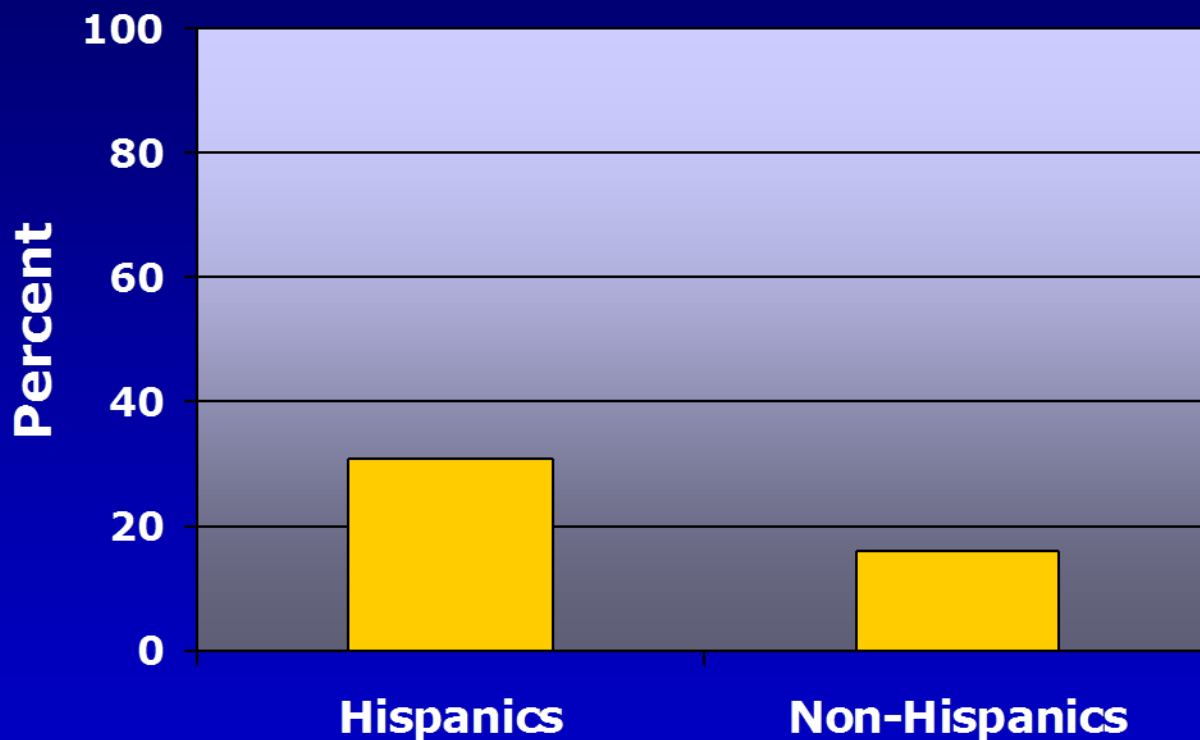
Influenza Vaccine Availability by Subspecialty Practices



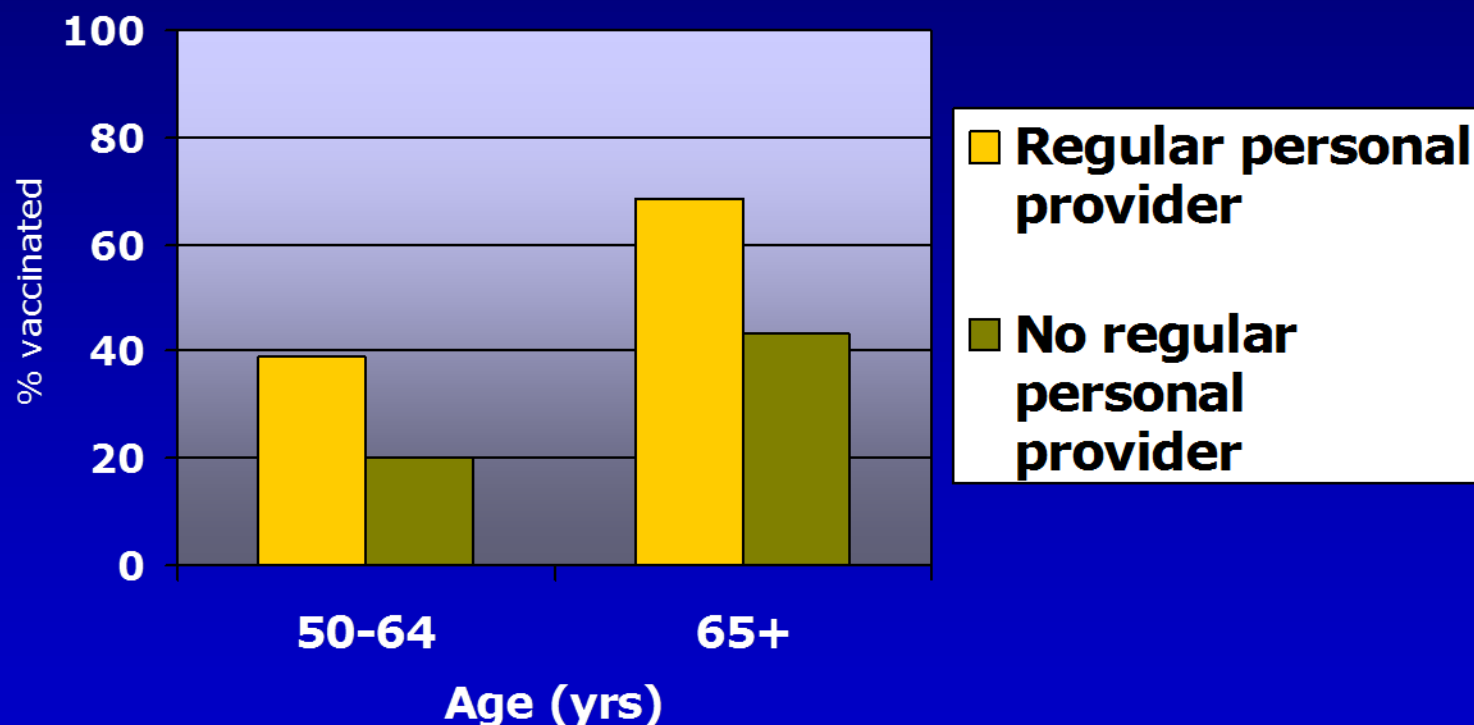
Location of Influenza Vaccination



Proportion of Adults With No Regular Personal Health Care Provider



Influenza Vaccination Among Adults by Regular Personal Health Care Provider

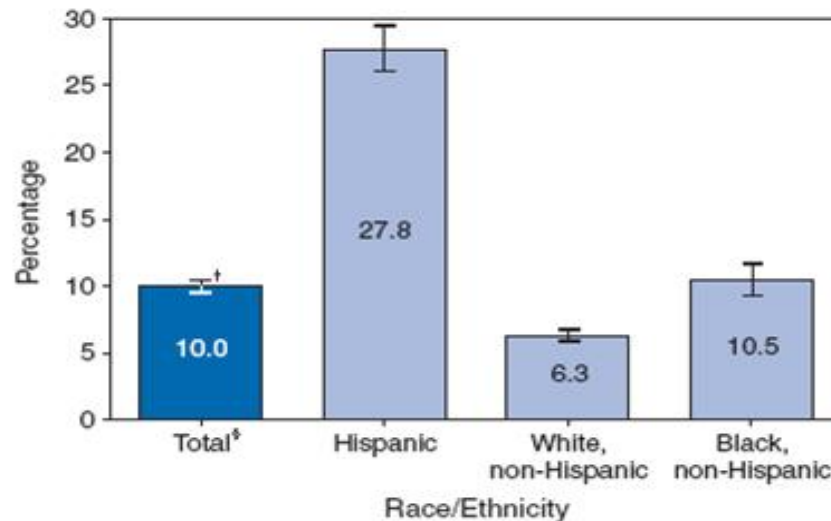


Lack of Health Insurance by Race/Ethnicity

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Persons Who Lacked Health Insurance Coverage for More Than 1 Year*, by Race/Ethnicity — United States, January–June 2004



* A year is defined here as the 12 months preceding interview.

† 95% confidence interval.

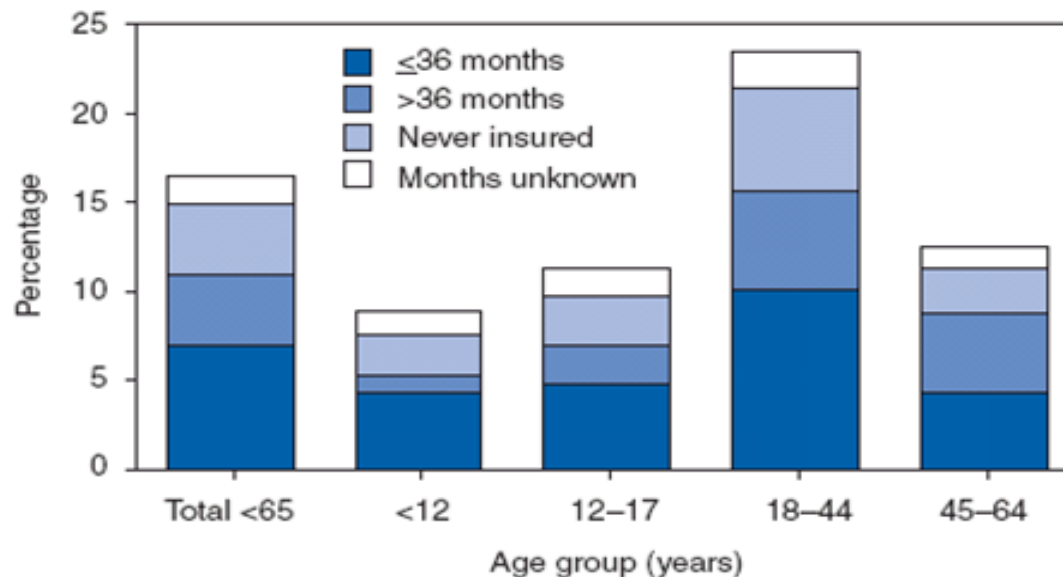
§ Total includes non-Hispanics of other races/multiple races (not shown).

Lack of Health Insurance By Age Group

QuickStats

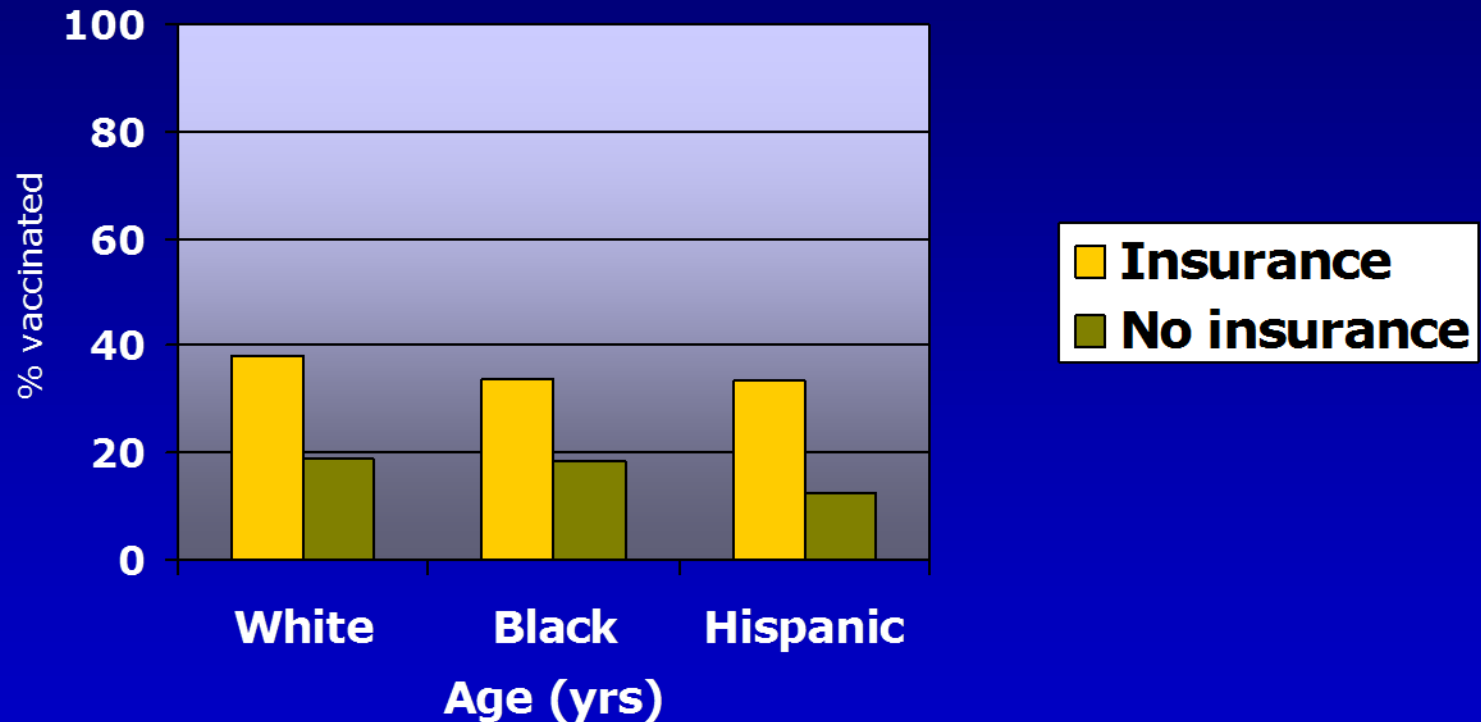
FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Persons Aged <65 Years Without Health Insurance, by Age Group and Number of Uninsured Months — United States, 2003



<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5415a4.htm>

Influenza Vaccination Among High-Risk Adults Aged 18-64 Years by Health Insurance



Summary

- **Patient factors**
 - Concerns, misconceptions
 - Lack of awareness
 - Mistrust
 - Cultural / ethnic issues
- **Provider factors**
 - Competing demands
 - Missed opportunities
- **Systems factors**
 - Practices may have limited resources available
 - Availability of vaccine in physician practices
- **Environmental factors**
 - Inconvenient access
 - No regular health care provider
 - Lack of health insurance